



# City of Seattle Privacy Impact Assessment

## Purpose of PIA

A Privacy Impact Assessment is designed to outline the anticipated privacy impacts from a City project/program or project/program update that collects, manages, retains or shares personal information from the public. The PIA will provide project/program details that will be used to determine how privacy impacts may be mitigated or reduced in accordance with the City of Seattle Privacy Principles and Privacy Statement.

## Abstract

**Please provide a brief abstract.** The abstract is the single paragraph that will be used to describe the project and **will be published on the Privacy Program website**. It should be a minimum of three sentences and a maximum of four, and use the following format:

- The first sentence should include the name of the project, technology, pilot, or project/program (hereinafter referred to as “project/program”).
- The second sentence should be a brief description of the project/program and its function.
- The third sentence should explain the reason the project/program is being created or updated and why the PIA is required. This sentence should include the reasons that caused the project/program to be identified as a “privacy sensitive system” in the Privacy Intake Form, such as the project/program requiring personal information or the technology being considered privacy sensitive.

Seattle City Light is implementing a new process for measuring and recording electricity usage called “Advanced Metering Initiative” (AMI). This will provide data support for the billing process that was recently implemented under the New Customer Information System (NCIS). This program will replace electric meters on customer premises with advanced meters that can be read wirelessly, providing many benefits to customers and greatly improving operational efficiencies within City Light. AMI programs have raised concerns in some communities about specific technologies deployed and their capabilities as some deployments allow utilities to have near real time access to customer energy usage. By completing this PIA City Light seeks to identify potential risks in its AMI program that could be mitigated to increase the public’s trust in how electric utility energy use data is collected and used.

**Note: this PIA was revised on April 12, 2017, adding additional clarifying text in the Project/program Overview section. Additional text is in bold.**

## Project/program Overview

**Please provide an overview of the project/program.** The overview provides the context and background necessary to understand the project/program’s purpose and mission and the justification for operating a privacy sensitive project/program. Include the following:

- Describe the purpose of the system, technology, pilot or project/program; the name of the department that owns or is funding the project/program and how it the project/program relates to the department’s mission;
- Describe how the project/program collects and uses personal information, including a typical transaction that details the life cycle from collection to disposal of the information;
- Describe any routine information sharing conducted by the project/program both within City of Seattle departments and with external partners. Describe how such external sharing is designed with the original collection of the information.
- Identify any major potential privacy risks identified and briefly discuss overall privacy impact of the project/program on individuals
- Identify the technology used and provide a brief description of how it collects information for the project/program.

### Purpose

Advanced Metering Infrastructure (AMI) is a City Light program that enable wireless, automatic communication with electrical meters. As of 2014, more than 500 utilities across the nation have deployed 50 million meters using this technology, covering more than 43 percent of American households. The AMI program will:

- Use secure wireless communications to send customer raw meter data directly to City Light.
- Alert City Light to power outages, enabling a faster outage response.
- Create more reliable customer billing. Advanced Metering replaces several manual processes, helping facilitate accurate meter reads and customer billing.

### Use of personal information

The most visible portion of the AMI program to customers is the deployment of new electric meters. The meters will provide wireless communication between the meter and City Light via the vendor retained to collect meter data. Data exchanged between the new meters and the utility facilitate two business processes: meter to cash and remote meter management.

**Note that customers have an option of opting out of having an AMI capable meter for an additional fee. These customers will receive a meter not capable of storing periodic energy usage data or wirelessly transmitting data. These meters will be read manually approximately once per billing cycle.**

#### *Meter to cash*

Like today’s meters, the new meters continually measure energy usage and maintain a running total of usage over time. Every four (4) hours, raw meter data is transmitted through a wireless network maintained by the City’s smart meter vendor, Landis+Gyr.

Energy usage data is maintained in Landis+Gyr’s head end system (HES) for 45 days. On a daily basis, City Light systems will pull raw meter data from Landis+Gyr’s data repository, summarize it to a single monthly or bimonthly interval value, and save the data in City Light’s Oracle Meter Data Management (MDM) system. The MDM system matches the Meter ID in raw meter data with a Meter ID from a customer record in City Light’s Oracle Customer Care and Billing (CCB) system, and converts the data to specific Customer Energy Use Data (CEUD). On a bimonthly basis, CEUD data is used to generate the customer’s bill. City Light does not maintain CEUD more detailed than monthly, except for those commercial accounts where demand needs to be recorded on an hourly basis.

### *Remote meter management*

The new meters allow designated City Light staff to remotely interact with the meter, such as turning on service for a new customer or discontinuing service in the event of a customer move or non-payment, disconnecting and reconnecting for non-payment, or detecting abnormal meter conditions.

The data element “Meter ID” is the only identifiable data element exchanged between the meter and HES. This identifier is used by City Light in the MDM and CCB systems to identify the customer account responsible for electric consumption measured by the meter. Per the City of Seattle’s Privacy Program, Meter ID element meets the definition of “personal information” as it can be used in coordination with another City system to identify a person. City Light only collects and records the customer specific data referred to here in CCB and this is not new as the result of AMI. This is the current process for sending meter reading data through MDM to CCB for billing purposes.

### Data sharing

Seattle City Light shares raw meter and CEUD data with third parties for limited uses, including:

- Providing services on behalf of the utility related to meter to cash management and conservation. In these cases, City Light’s contracts with service providers will prohibit the provider from using raw meter data for a purpose other than providing the service procured by City Light. For example, Landis+Gyr collects raw meter data on behalf of City Light but is contractually not permitted to use the data other than to store and process it at the direction of City Light. Providers like L&G that have access to City Light data sign an agreement limiting use of raw meter and CEUD data to approved purposes.
- Benchmark energy use within a neighborhood. Providers would contractually be limited to using CEUD to perform benchmark comparisons.
- Providing aggregate data usage to the Environmental Protection Agency (EPA).

During the meter installation process, City Light will allow access to some personal information by Smartgridsolutions, the meter installation vendor. By contract, the vendor is required to dispose of this information within six months after the project completion date (6/2019). Information shared will generally include customer address and Meter ID. After the initial AMI deployment, City Light expects to return to normal business operations where all meters are deployed by City light’s technical metering group.

Seattle Public Utilities (SPU) employees and contractors who staff the City’s Utility Customer Call Center have access to City Light CEUD. SPU operates the call center on behalf of City Light. Staff within the City’s Information Technology Department (Seattle IT) develop and maintain City Light’s systems including CCB, MDM, and the interface between Landis+Gyr’s HES and MDM. A limited number of Seattle IT staff have access to City Light production systems as part of maintaining them. The Human Services Department (HSD) can access City Light customer account information, including CEUD, for the purpose of administering the City’s Utility Discount Program. Other than SPU, Seattle IT, and HSD, City Light does not share CEUD with other City departments. Like other utilities, City Light may be compelled by law enforcement agencies or courts to provide CEUD. City Light only provides information upon receipt of a valid warrant, subpoena, or other legally binding order.

### Technology

The following technologies will be deployed as part of the AMI program:

- *Electric meters:* L&G AX meters will be deployed for residential customers and the L&G S4x and AX Poly meters will be deployed for commercial/industrial installations.
- *AMI network:* Raw meter data will be transmitted from the devices through a series of repeaters and collectors through the L&G GridStream RF Network.
- *Head end system (HES):* City Light will use L&G's HES software as a service (SaaS) solution to capture raw data from meters and perform remote meter management functions, such as turning on service for new customers and disconnecting service from discontinuing customers by using the HES command center.
- *Grid monitoring:* City Light will begin using L&G's Advanced Grid Analytics (AGA) software as a service (SaaS) system to monitor utility asset loading, voltage, revenue protection, and related grid status information. City Light may use additional AGA features in the future, such as power diversion, outage management, and volt-VAR optimization.
- *Asset management:* Oracle Operational Device Management (ODM) will be implemented to help manage change, configuration, and inventory of smart grid assets. Residing in the City's data center, ODM will handle critical functions, such as managing and tracking updates and patches, as well as supporting governance and regulatory audits and smart grid Network Operations Center (NOC) processes.
- *Integration:* Oracle Smart Grid Gateway (SGG), is the single point of connection between the applications and the meter devices. Residing in the City's data center, SGG sends commands to meters via L&G's HED to facilitate remote disconnect/reconnect or obtaining reads for billing consumption.
- *Oracle Meter Data Management (MDM):* loads and validates data in a manner that facilitates business processes such as billing.
- *Oracle Customer Care & Billing (CCB):* City Light's new customer billing system was implemented in September 2016 and is being updated to capture data from the new meters. Residing in the City's data center, the system tracks and manages service connection, meter reading, rates, billing, payments processing, collections, and field work.

#### Notification

1. **How does the project/program provide notice about the information that is being collected?** Our Privacy Principles and Statement require that we provide notice to the public when we collect personal information, whenever possible.
  - Describe how notice will be provided to the individuals whose information is collected by this project/program and how it is adequate.
  - If notice is not provided, explain why not. (For certain law enforcement or other project/programs, notice may not be appropriate.)
  - Discuss how the notice provided corresponds to the purpose of the project/program and the stated uses of the information collected.

The AMI program is a critical initiative for City Light and of interest to the public, Mayor, and City Council. For the initial program and meter deployment, City Light has developed a communications and outreach plan that involves community meetings, notification in customer bills, and a website that describes how the program works and notification of data use practices.

As part of the program new customer sign-up processes will be updated to include notice for AMI. The notice will inform customers of how their CEUD will be used and City Light contact information where questions can be directed.

- 2. What opportunities are available for individuals to consent to the use of their information, decline to provide information, or opt out of the project/program?** Describe how an individual may provide consent for specific uses or whether consent is given to cover all uses (current or potential) of his/her information. If specific consent is permitted or required, how does the individual consent to each use? If notice is provided explain how an individual may exercise the right to consent to particular uses or decline to provide information describe the process. If this is not an option, explain why not. *Note: An example of a reason to not provide an opt-out would be that the data is encrypted and therefore unlikely available to identify an individual in the event of a data breach.*

The unique legal nature of City Light as a municipal utility requires it to collect raw meter data to provide reliable electric service. Customers are notified of data collection practices during the new customer enrollment process.

However, as AMI updates the method of energy use collection, a customer may choose to opt-out of the automated retrieval of raw meter data and the utility will continue to collect this data manually. Information about the opt-out process is available on City Light's website. City Light's rates are calculated based on customers participating in the AMI program. Customers that opt for manual meter reads will be charged a fee for this service, based on the utility's cost of performing manual meter reads.

For customers seeking additional information, SCL's dedicated customer service team will be available to explain and assist customers with the opt-out process and associated fees. The development and implementation of the AMI Program's opt-out process followed SCL's standard Department Process & Procedures process which included notifications and reviews by the Public and City Light's internal legal resources.

## Collection

- 3. Identify the information, including personal information, that the project/program collects, uses, disseminates, or maintains.** Explain how the data collection ties with the purpose of the underlying mission of the department.

The electric meters deployed as part of the AMI program transmit raw meter data that will be used for residential and commercial electric utility billing purposes, remote meter management and to assist SCL in identifying power outages. This information includes an abstract identifier that uniquely identifies the meter as well as the date and time. Power related information includes kilowatt hour use, peak demand, phase angle data, power factor, voltage, frequency, reactive power and temperature. A more extensive, complete list of data categories is attached to this Impact Assessment.

Concerns have been raised about possible other types of information that may be collected by smart meters, such as information about what specific appliances were drawing power at any given time, however the electric meters procured by City Light for its AMI program do not have the functionality to capture this data, and this functionality cannot be added to the AMI meters. Additionally,

concerns have been expressed by some about the security of meter features that allow households to access smart meters via Wi-Fi to monitor their usage. The electric meters deployed as part of City Light's AMI program do not have the capability for households to connect to their meter; the meters are only capable of communicating to the L&G GridStream network.

- 4. Is information being collected from sources other than an individual, including other IT systems, systems of records, commercial data aggregators, publicly available data and/or other departments? State the source(s) and explain why information from sources other than the individual is required.**

Raw meter data collected from meters is ultimately loaded into the City Light and Seattle Public Utilities' CCB billing system, where the Meter ID data element is used to associate the data with a customer's account. Associating CEUD with a customer account in the CCB system is required to generate customer bills.

#### Use

- 5. Describe how and why the project/program uses the information that is collected.** List each use (internal and external to the department) of the information collected or maintained. Provide a detailed response that states how and why the different data elements will be used.

Raw meter data is collected and transformed into CEUD, which is used for the following purposes:

- Determine customer energy usage and generate customer bills
- Benchmark energy usage across customers to help customers identify energy efficiency opportunities
- Monitor grid reliability, resiliency, and efficiency
- Monitoring and maintaining the GridStream network and HES
- Managing electricity outages
- Facilitate distribution planning, for example sizing electricity transformers and circuits
- Perform customer management functions, such as disconnecting and reconnecting meters, and identifying potential meter tamper events
- Provide customer service, including answering customer questions about energy use
- Provide customer self-service, such as web-based portals where customers can review their energy use.

- 6. Does the project/program use technology to:**
- a. **Conduct electronic searches, queries, or analyses in an electronic database to discover or locate a predictive pattern or an anomaly or**
  - b. **Create new information such as a score, analysis, or report?**

If so, state how the City of Seattle plans to use such results. Some project/programs perform complex analytical tasks resulting in other types of data, matching, relational analysis, scoring, reporting, or pattern analysis. Explain what will be done with the newly derived information. Will the results be placed in the individual's existing record? Will a new record be created? Will any action be taken against or for the individual identified because of the newly derived data?

Raw meter data and CEUD will be used, searched, queried, or analyzed by SCL for service delivery management, distribution planning (sizing transformers and circuits), asset management (transformer loading and maintenance), and outage management.

The data may be used to identify anomalies, such as a line loss conditions, power outage, or potential meter tampering. Built-in functionality in the HES supports this his analysis by monitoring events and alerts City Light staff who respond as appropriate.

City Light will continue to conduct analysis that identifies customers whose usage or meter activity fluctuates between billing cycles to ensure accuracy of billing practices.

- 7. How does the project/program ensure appropriate use of the information that is collected?** Describe any types of controls that may be in place to ensure that information is handled in accordance with the uses described above.

Access to raw meter data and CEUD is limited to a need to know basis with specific management and business application owner approval required before access can be granted. User access is reviewed annually.

AMI devices are configured to prevent unauthorized access and to monitor for and alert on suspected security events.

## Retention

- 8. Does the project/program follow the City records retention standard for the information it collects?** Departments are responsible for ensuring information collected is only retained for the period required by law. City departments are further responsible for reviewing and auditing their compliance with this process. For more information, please see the internal retention schedule, [here](#), and records retention ordinance, [here](#).

In addition, please provide answers to the following questions:

- How does it dispose of the information stored at the appropriate interval?
- What is your audit process for ensuring the timely and appropriate disposal of information?

Raw meter data and CEUD is maintained in compliance with applicable laws and regulations with respect to the collection, retention, and destruction. SCL's retention policy for CEUD information is compliant with requirements of the Federal Energy Regulatory Commission (FERC). FERC requires CEUD be maintained six (6) years.

Disposition practices and an audit process will be defined as part of project implementation.

## Sharing

- 9. Are there other departments or agencies with assigned roles and responsibilities regarding the information that is collected?** Identify and list the name(s) of any departments or agencies with

which the information is shared and how ownership and management of the data will be handled.

Seattle City Light only shares energy usage data with third parties for specific limited uses as described in the Project Overview above.

CEUD will not be publicly shared since CUED in increments less than a billing cycle is not public record subject to public disclosure, per RCW 42.56.330(2).

Standard contractual language for service provider use of raw meter data and CEUD will be developed and memorandums of agreement will be implemented between City Light, SPU, and Seattle IT governing data use.

**10. Does the project/program place limitations on data sharing?**

Describe any limitations that may be placed on external agencies further sharing the information provided by the City of Seattle. In some instances, the external agency may have a duty to share the information, for example through the information sharing environment.

Raw meter data and CEUD is not shared, except as described in the Project Overview and question 8 above.

**11. What procedures are in place to determine which users may access the information and how does the project/program determine who has access?** Describe the process and authorization by which an individual receives access to the information held by the project/program, both electronic and paper based records. Identify users from other departments who may have access to the project/program information and under what roles these individuals have such access. Describe the different roles in general terms that have been created that permit access to such project/program information. Specifically, if remote access to the system is allowed or external storage or communication devices interact with the system, describe any measures in place to secure the transmission and storage of data (e.g., encryption and/or two-factor authentication).

Access to raw meter data and CEUD is limited while still allowing individuals to appropriately perform their job functions. Access to information is role based and granted on a need to know basis with specific management and business application owner approval required. City Light employees will utilize the raw meter data and CEUD collected for specific system performance purposes according to their roles and responsibilities in the utility. The existing security/authorization measures and procedures in place for raw meter data CEUD will remain in place.

**12. How does the project/program review and approve information sharing agreements, MOUs, new uses of the information, new access to the system by organizations within City of Seattle and outside agencies?** Please describe the process for reviewing and updating data sharing agreements.



In the event third party service providers who may handle raw meter data and CEUD are engaged, City Light assures contractual language limits how the provider can use the data and requires appropriate security measures be implemented to protect it.

Before new uses for raw meter data and CEUD not described in this PIA could be implemented, a new privacy review would be completed.

## Legal Obligations and Compliance

### **13. Are there any specific legal authorities and/or agreements that permit and define the collection of information by the project/program in question?**

- List all statutory and regulatory authority that pertains to or governs the information collected by the project/program, including the authority to collect the information listed in question.
- If you are relying on another department and/or agency to manage the legal or compliance authority of the information that is collected, please list those departments and authorities.

The City of Seattle is authorized by the State of Washington to operate a municipal electric utility, including the ability to measure energy usage and charge consumers for the service. Per RCW 35.92.050, City Light is authorized to “maintain and operate works, plants, facilities for the purpose of furnishing the city or town and its inhabitants, and any other persons, with gas, electricity, and other means of power and facilities for lighting, including streetlights as an integral utility service incorporated within general rates, heating, fuel, and power purposes, public and private, with full authority to regulate and control the use, distribution, and price thereof, together with the right to handle and sell or lease, any meters, lamps, motors, transformers, and equipment or accessories of any kind, necessary and convenient for the use, distribution, and sale thereof.”

Seattle Municipal Code (SMC) section 3.08 defines City Light as a department and grants certain powers to the department’s General Manager and Chief Executive Officer (CEO). SMC section 21.49 authorizes City Light to establish rates for electricity services, install and read electricity meters, and bill for energy consumption.

### **14. How is data accuracy ensured? Explain how the project/program checks the accuracy of the information. If a commercial data aggregator is involved describe the levels of accuracy required by the contract. If the project/program does not check for accuracy, please explain why. Describe any technical solutions, policies, or procedures focused on improving data accuracy and integrity of the project/program.**

Meters are manufactured and tested in accordance with American National Standards (ANSI C12.20) for meter accuracy. Further, it is part of City Light’s first article testing commodity acceptance testing procedures to formally evaluate meters for a variety characteristics including meter accuracy. Upon receipt, SCL sample tests one (1) to two (2) percent of meters.

City Light’s contract with L&G requires the company to implement controls that protect data in transit from the meter to HES, and from HES to the City’s MDM. As part of the transmission process, balancing controls and data validation checks identify errors in transmission. Data by

affected by errors in transmission are discarded. In addition, analytics in HES are used to identify anomalous meter readings, which are flagged for review.

The billing synchronization processes between HED and MDM will complete detailed data integrity checks to validate meter reads before a meter read is used by CCB for billing purposes. Exceptions, if any, will be researched and resolved. End-to-end automated data integrity checks will be configured and implemented.

**15. What are the procedures that allow individuals to access their information?**

Describe any procedures or regulations the department has in place that allow access to information collected by the system or project/program and/or to an accounting of disclosures of that information.

Customers will do not have access to raw meter data. City Light is exploring how to make this data available through a customer self-service portal in the future. Before such a portal would be released, a new privacy impact assessment specific to its privacy-related risks, would be completed.

CEUD in aggregate form is made available to individual customers through their bi-monthly bill. Customers may contact City Light for historical copies of their bill. Billing system access and customer service procedures were developed pursuant to the Fair and Accurate Credit Transactions Act. (FACT Act).

**16. What procedures, if any, are in place to allow an individual to correct inaccurate or erroneous information?** Discuss the procedures for individuals to address possibly inaccurate or erroneous information. If none exist, please state why.

Customers may contact a City Light for questions about their energy usage and to report potential inaccuracies. If a customer's concerns are not resolved, the customer may request a meeting with a Customer service supervisor. A customer may also file an appeal with the City Light Hearing Officer formally to dispute a bill.

City Light customer service are compliant with the Fair and Accurate Credit Transactions Act. (FACT Act).

**17. Is the system compliant with all appropriate City of Seattle and other appropriate regulations and requirements?** Please provide details about reviews and other means of ensuring systems and project/program compliance.

The AMI Program and systems has been reviewed in the areas of security, health and safety, budgeting, and procurement by a number of governing bodies including, but not limited to, the SCL Review Panel and Seattle City Council over the past three years.

The AMI Program will work with SCL Internal Audit and Seattle IT throughout the project design, implementation, and operation to ensure effective and appropriate security and privacy provisions are in place.

**18. Has a system security plan been completed for the information system(s) supporting the project/program?** Please provide details about how the information and system are secured against unauthorized access.

Landis+Gyr provided the City with a report on controls implemented to maintain the operating effectiveness of its systems. Entitled, “Report on Landis+Gyr Technology, Inc.’s Description of its Managed Services Operations System and on the Suitability of the Design and Operating Effectiveness of Its Controls”, the report includes the opinion of an independent auditor that found controls were designed and implemented sufficiently to achieve the desired outcomes specified by L&G. City Light’s contract with L&G requires the company to provide this report on a regular basis.

The scope of the report is limited to the provider, and the scoping statement provided by the independent services auditor notes “certain control objectives specified in the [control’s] description can be achieved only if complementary user entity controls contemplated in the design of Landis+Gyr Technology, Inc.’s controls are suitably designed and operating effectively, along with related controls at the service organization.” As part of the AMI implementation program, City Light will implement requisite controls.

A system security plan has not been developed for the systems that comprise City Light’s AMI Program.

**19. How is the project/program mitigating privacy risk?** Given the specific data elements collected, discuss the privacy risks identified and for each risk explain how it was mitigated. Specific risks may be inherent in the sources or methods of collection, or the quality or quantity of information included.

Raw meter data alone poses limited privacy risk – Meter ID cannot be used to identify an individual unless paired with the customer record maintained in City Light’s separate CCB system. Similarly, knowing the cumulative electricity usage of a specific meter at a point in time is not useful as it cannot be used to determine usage patterns without historical data stored in HES and/or CCB.

Therefore, one of the most important privacy risks to mitigate is the unintended or improper use of energy data. Such improper use could result in City employees inferring a customer’s presence at home based on energy usage patterns. To mitigate access risk, City Light is implementing:

- The transmission of energy data between the electric meter and the L&G SmartGrid network is encrypted in accordance with FIPS 140-2 security requirements. Raw meter data is only exchanged between the City and L&G’s network via an encrypted VPN tunnel.
- Access to raw meter data and CEUD access is limited to a need to know basis with specific management and business application owner approval required before access can be granted. User access is reviewed annually.

- City Light employees are trained on how to handle CEUD, restrictions on its use, and the consequences of misusing it.

## Monitoring and Enforcement

**20. Describe how the project/program maintains a record of any disclosures outside of the department.** A project/program may keep a paper or electronic record of the date, nature, and purpose of each disclosure, and name and address of the individual or agency to whom the disclosure is made. If the project/program keeps a record, list what information is retained as part of the accounting requirement. A separate system does not need to be created to meet the accounting requirement, but the project/program must be able to recreate the information noted above to demonstrate compliance. If the project/program does not, explain why not.

City Light has processes in place to manage disclosures through its Legal Affairs/Public Records Office. Data collected through the AMI Program, including raw meter data and CEUD, does not change any current procedures.

**21. Have access controls been implemented and are audit logs are regularly reviewed to ensure appropriate sharing outside of the department?** Is there a Memorandum of Understanding (MOU), contract, or agreement in place with outside agencies? Discuss how the sharing of information outside of the Department is compatible with the stated purpose and use of the original collection.

There is an established protocol for the billing system components where all CEUD is stored and controls are in place including the audit logs. As part of the AMI implementation, we will develop a process for periodically reviewing the audit logs.

Refer to question 9 for information on agreements implemented with other departments and third parties for information sharing.

**22. How does the project/program ensure that the information is used in accordance with stated practices of the project/program?** What auditing measures are in place to safeguard the information and policies that pertain to them? Explain whether the project/program conducts self-audits, third party audits or reviews.?

City Light Internal Audit periodically reviews the design and operating effectiveness of controls implemented to facilitate system use in accordance with security, privacy, legal, and regulatory commitments. As part of the AMI Program, the methodology for these reviews will be updated to include a review of controls intended to maintain proper use of raw meter data and CEUD.

**23. Describe what privacy training is provided to users either generally or specifically relevant to the project/program.** City of Seattle offers privacy and security training. Each project/program may offer training specific to the project/program, which touches on information handling procedures and sensitivity of information. Discuss how individuals who have access to personal information are trained to handle it appropriately. Explain what controls are in place to ensure that users of the system have completed training relevant to the project/program.

Employees with access to systems containing raw meter data and CEUD, including HES, MDM, and CCB are trained about appropriate use and handling of the data before receiving access to the systems.

City of Seattle employees, including City Light, SPU, and Seattle IT employees complete annual privacy awareness training. This training, which reinforces that data may only be used for the purpose stated in the notice. Consent provided to customers at the time of data collection, as such practices are, are in accordance with the City's privacy statement and privacy principles.

**24. Is there any aspect of the project/program that might cause concern by giving the appearance to the public of privacy intrusion or misuse of personal information?** Examples might include a push of information out to individuals that is unexpected and appears to be intrusive, or an engagement with a third party to use information derived from the data collected that is not explained in the initial notification.

AMI programs have garnered public interest and media attention in the approximately fifteen years since deployments began. This interest has focused on deployment aspects such as how near-real time raw meter data will be used and how it will be protected. In addition, concerns have been raised about add-on technologies intended to help consumers understand their energy usage, such as in-home monitoring equipment that connects to smart meters and additional monitoring sensors built-in to meters that determine specific appliances operating within a customer's home.

City Light recognizes the public concern over AMI implementations and is taking steps to safeguard and limit the use of raw meter data and CEUD. Specifically:

- AMI technology and equipment procured by City Light, including meters, does not include functionality that would allow customers to connect directly to the meter, nor do meters contain sensors that can monitor energy usage to determine what appliances are actively consuming energy. Meters are only capable of measuring electricity usage, monitoring conditions of the electrical grid such as power outages and reactive power, and transmitting this information to the HES.
- City Light is engaged in a public education campaign about the AMI Program, including how meters and the broader system works. Information is available on the City Light website and bill inserts. In addition, City Light held public comments periods and performed community outreach to gather feedback on the program.
- As part of implementing the AMI Program and related systems and processes, City Light is strictly controlling information access as well as educating its employees and stakeholders, including providers and employees in other City departments involved in the program, on proper data handling and protection practices, and limits on how raw meter data and CEUD may be used.
- New City Light customers will be notified of how their CEUD will be collected and used as part of the new customer enrollment process.
- An annual notice of privacy practices is provided to existing customers
- The HES, MDM, CCB integration, and other systems implemented or modified in the meter to cash and remote meter management process will be assessed for security considerations

before program completion. As part of this assessment City Light will determine the appropriate frequency and approach for ongoing security assessments.